

Landscape Architects

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Significant Points

- Almost 23 percent are self-employed—more than 3 times the proportion for all professionals.
- A bachelor's degree in landscape architecture is the minimum requirement for entry-level jobs; many employers prefer to hire landscape architects who also have completed at least one internship.
- A growing demand for incorporating natural elements into man-made environments, along with the need to meet a wide array of environmental restrictions, will increase the demand for landscape architects.

Nature of the Work

Everyone enjoys attractively designed residential areas, public parks and playgrounds, college campuses, shopping centers, golf courses, parkways, and industrial parks. Landscape architects design these areas so that they are not only functional, but also beautiful, and compatible with the natural environment. They plan the location of buildings, roads, and walkways, and the arrangement of flowers, shrubs, and trees.

Landscape architects work for many types of organizations—from real estate development firms starting new projects to municipalities constructing airports or parks—and they often are involved with the development of a site from its conception. Working with architects, surveyors, and engineers, landscape architects help determine the best arrangement of roads and buildings. They also collaborate with environmental scientists, foresters, and other professionals to find the best way to conserve or restore natural resources. Once these decisions are made, landscape architects create detailed plans indicating new topography, vegetation, walkways, and other landscaping details, such as fountains and decorative features.

In planning a site, landscape architects first consider the nature and purpose of the project and the funds available. They analyze the natural elements of the site, such as the climate, soil, slope of the land, drainage, and vegetation; observe where sunlight falls on the site at different times of the day and examine the site from various angles; and assess the effect of existing buildings, roads, walkways, and utilities on the project.

After studying and analyzing the site, landscape architects prepare a preliminary design. To account for the needs of the client as well as the conditions at the site, they frequently make changes before a final design is approved. They also take into account any local, State, or Federal regulations, such as those protecting wetlands or historic resources. In preparing designs, computer-aided design (CAD) has become an essential tool for most landscape architects. Many landscape architects also use video simulation to help clients envision the proposed ideas and plans. For larger scale site planning, landscape architects also use geographic information systems technology, a computer mapping system.

Throughout all phases of the planning and design, landscape architects consult with other professionals involved in the project. Once the design is complete, they prepare a proposal for the client. They produce detailed plans of the site, including written reports, sketches, models, photographs, land-use studies, and cost estimates, and submit them for approval by the client and by regulatory agencies. When the plans are approved,

landscape architects prepare working drawings showing all existing and proposed features. They also outline in detail the methods of construction and draw up a list of necessary materials. Although many landscape architects monitor the installation of their design, the developer's project general contractor or a landscape contractor usually directs the actual construction and installation of plantings.

Some landscape architects work on a variety of projects. Others specialize in a particular area, such as residential development, street and highway beautification, waterfront improvement projects, parks and playgrounds, or shopping centers. Still others work in regional planning and resource management; feasibility, environmental impact, and cost studies; or site construction. Increasingly, landscape architects are becoming involved with projects in environmental remediation, such as preservation and restoration of wetlands. Historic landscape preservation and restoration is another important area where landscape architects are increasingly playing an important role.

Most landscape architects do at least some residential work, but relatively few limit their practice to individual homeowners. Residential landscape design projects usually are too small to provide suitable income compared with larger commercial or multiunit residential projects. Some nurseries offer residential landscape design services, but these services often are performed by lesser qualified landscape designers, or others with training and experience in related areas.

Landscape architects who work for government agencies do site and landscape design for government buildings, parks, and other public lands, as well as park and recreation planning in national parks and forests. In addition, they prepare environmental impact statements and studies on environmental issues such as public land-use planning. Some restore degraded land, such as mines or landfills. Other architects use their skills in traffic-calming, the "art" of slowing traffic down through use of traffic design, enhancement of the physical environment, and greater attention to aesthetics.

Working Conditions

Landscape architects spend most of their time in offices creating plans and designs, preparing models and cost estimates, doing research, or attending meetings with clients and other professionals involved in a design or planning project. The remainder of their time is spent at the site. During the design and planning stage, landscape architects visit and analyze the



Landscape architects often visit the worksite to check that plans are implemented properly.

site to verify that the design can be incorporated into the landscape. After the plans and specifications are completed, they may spend additional time at the site observing or supervising the construction. Those who work in large national or regional firms may spend considerably more time out of the office traveling to sites away from the local area.

Salaried employees in both government and landscape architectural firms usually work regular hours; however, they may work overtime to meet a project deadline. Hours of self-employed landscape architects vary depending on the demands of the projects on which they are working.

Employment

Landscape architects held about 23,000 jobs in 2002. About 4 out of 10 workers were employed in firms that provide architectural, engineering, and related services. The Federal Government also employs these workers, primarily in the U.S. Departments of Agriculture, Defense, and Interior. Almost 1 of every 4 landscape architects was self-employed.

Employment of landscape architects is concentrated in urban and suburban areas throughout the country; some landscape architects work in rural areas, particularly those employed by the Federal Government to plan and design parks and recreation areas.

Training, Other Qualifications, and Advancement

A bachelor's or master's degree in landscape architecture usually is necessary for entry into the profession. The bachelor's degree in landscape architecture takes 4 or 5 years to complete. There also are two types of accredited master's degree programs. The most common type of master's degree is a 3-year first professional degree program designed for students with an undergraduate degree in another discipline. The second type of master's degree is a 2-year second professional degree program for students who have a bachelor's degree in landscape architecture and who wish to teach or specialize in some aspect of landscape architecture, such as regional planning or golf course design.

In 2002, 58 colleges and universities offered 75 undergraduate and graduate programs in landscape architecture that were accredited by the Landscape Architecture Accreditation Board of the American Society of Landscape Architects. College courses required in these programs usually include technical subjects such as surveying, landscape design and construction, landscape ecology, site design, and urban and regional planning. Other courses include history of landscape architecture, plant and soil science, geology, professional practice, and general management. Many landscape architecture programs also are adding courses that address environmental issues, a growing concern of landscape architects. The design studio is another important aspect of many landscape architecture curriculums. Whenever possible, students are assigned real projects, providing them with valuable hands-on experience. While working on these projects, students become more proficient in the use of computer-aided design, geographic information systems, and video simulation.

In 2002, 46 States required landscape architects to be licensed or registered. Licensing is based on the Landscape Architect Registration Examination (L.A.R.E.), sponsored by the Council of Landscape Architectural Registration Boards and administered over a 3-day period. Admission to the exam usually requires a degree from an accredited school plus 1 to 4 years of work experience under the supervision of a registered land-

scape architect, although standards vary from State to State. Currently, 15 States require the passage of a State examination in addition to the L.A.R.E. to satisfy registration requirements. State examinations, which usually are 1 hour in length and completed at the end of the L.A.R.E., focus on laws, environmental regulations, plants, soils, climate, and any other characteristics unique to the State.

Because State requirements for licensure are not uniform, landscape architects may not find it easy to transfer their registration from one State to another. However, those who meet the national standards of graduating from an accredited program, serving 3 years of internship under the supervision of a registered landscape architect, and passing the L.A.R.E. can satisfy requirements in most States. Through this means, a landscape architect can obtain certification from the Council of Landscape Architectural Registration Boards, and so gain reciprocity (the right to work) in other States.

In the Federal Government, candidates for entry positions should have a bachelor's or master's degree in landscape architecture. The Federal Government does not require its landscape architects to be licensed.

Persons planning a career in landscape architecture should appreciate nature, enjoy working with their hands, and possess strong analytical skills. Creative vision and artistic talent also are desirable qualities. Good oral communication skills are essential; landscape architects must be able to convey their ideas to other professionals and clients and to make presentations before large groups. Strong writing skills also are valuable, as is knowledge of computer applications of all kinds, including word processing, desktop publishing, and spreadsheets. Landscape architects use these tools to develop presentations, proposals, reports, and land impact studies for clients, colleagues, and superiors. The ability to draft and design using CAD software is essential. Many employers recommend that prospective landscape architects complete at least one summer internship with a landscape architecture firm in order to gain an understanding of the day-to-day operations of a small business, including how to win clients, generate fees, and work within a budget.

In States where licensure is required, new hires may be called "apprentices" or "intern landscape architects" until they become licensed. Their duties vary depending on the type and size of the employing firm. They may do project research or prepare working drawings, construction documents, or base maps of the area to be landscaped. Some are allowed to participate in the actual design of a project. However, interns must perform all work under the supervision of a licensed landscape architect. Additionally, all drawings and specifications must be signed and sealed by the licensed landscape architect, who takes legal responsibility for the work. After gaining experience and becoming licensed, landscape architects usually can carry a design through all stages of development. After several years, they may become project managers, taking on the responsibility for meeting schedules and budgets, in addition to overseeing the project design. Later, they may become associates or partners of a firm, with a proprietary interest in the business.

Many landscape architects are self-employed because start-up costs, after an initial investment in CAD software, are relatively low. Self-discipline, business acumen, and good marketing skills are important qualities for those who choose to open their own business. Even with these qualities, however, some may struggle while building a client base.

Those with landscape architecture training also qualify for jobs closely related to landscape architecture, and may, after gaining some experience, become construction supervisors, land or environmental planners, or landscape consultants.

Job Outlook

Employment of landscape architects is expected to increase faster than the average for all occupations through the year 2012. Their expertise will be highly sought after in the planning and development of new residential, commercial, and other types of construction, to meet the needs of a growing population. With land costs rising and the public demanding more beautiful spaces, the importance of good site planning and landscape design grows. Also, new construction is increasingly contingent upon compliance with environmental regulations, land use zoning, and water restrictions, spurring demand for landscape architects to help plan sites and integrate man-made structures with the natural environment in the least disruptive way. Landscape architects also will be increasingly involved in preserving and restoring wetlands and other environmentally sensitive sites. However, opportunities will vary from year to year, and by geographic region, depending on local economic conditions. During a recession, when real estate sales and construction slow down, landscape architects may face layoffs and greater competition for jobs. The need to replace landscape architects who retire or leave the labor force will produce some additional job openings.

Continuation of the Transportation Equity Act for the Twenty-First Century is expected to spur employment for landscape architects, particularly within State and local governments. This Act, known as TEA-21, provides funds for surface transportation and transit programs, such as interstate highway construction and maintenance and environment-friendly pedestrian and bicycle trails. Budget tightening in the Federal Government might restrict hiring in the U.S. Forest Service and the National Park Service, agencies that traditionally employ the most landscape architects in the Federal Government. Instead, such agencies may increasingly contract out for landscape architecture services, providing additional employment opportunities in private landscape architecture firms.

In addition to the work related to new development and construction, landscape architects are expected to be involved in historic preservation, land reclamation, and refurbishment of existing sites. They are also doing more residential design work as households spend more on landscaping than in the past. Because landscape architects can work on many different types of projects, they may have an easier time than other design professionals finding employment when traditional construction slows down.

New graduates can expect to face competition for jobs in the largest and most prestigious landscape architecture firms, but should face good job opportunities overall as demand increases, while the number of graduates of landscape architecture holds steady or goes up slightly. Opportunities will be best for landscape architects who develop strong technical skills—such as computer design—and communication skills, as well as knowledge of environmental codes and regulations. Those with additional training or experience in urban planning increase their opportunities for employment in landscape architecture firms that specialize in site planning as well as landscape design. Many employers prefer to hire entry-level landscape architects

who have internship experience, which significantly reduces the amount of on-the-job training required.

Earnings

In 2002, median annual earnings for landscape architects were \$47,400. The middle 50 percent earned between \$36,140 and \$62,470. The lowest 10 percent earned less than \$28,730 and the highest 10 percent earned over \$79,620. Architectural, engineering, and related services employed more landscape architects than any other group of industries, and there the median annual earnings were \$46,980 in 2002.

In 2003, the average annual salary for all landscape architects in the Federal Government in nonsupervisory, supervisory, and managerial positions was \$68,959.

Because many landscape architects work for small firms or are self-employed, benefits tend to be less generous than those provided to workers in large organizations.

Related Occupations

Landscape architects use their knowledge of design, construction, land-use planning, and environmental issues to develop a landscape project. Others whose work requires similar skills are architects, except landscape and naval; surveyors, cartographers, photogrammetrists, and surveying technicians; civil engineers; and urban and regional planners. Landscape architects also must know how to grow and use plants in the landscape. Some conservation scientists and foresters and biological and medical scientists study plants in general and do related work, while environmental scientists and geoscientists work in the area of environmental remediation.

Sources of Additional Information

Additional information, including a list of colleges and universities offering accredited programs in landscape architecture, is available from:

► American Society of Landscape Architects, Career Information, 636 Eye St. NW., Washington, DC 20001-3736. Internet: <http://www.asla.org>

General information on registration or licensing requirements is available from:

► Council of Landscape Architectural Registration Boards, 144 Church Street NW., Suite 201, Vienna, VA 22180-4550. Internet: <http://www.clarb.org>